

What Is Claimed Is:

1. An image pickup apparatus, comprising:

a solid-state image pickup element that can be driven by splitting, into a plurality of phases, a charge transfer gate, which controls the transfer of a charge from an image part, which forms part of a pixel array, to a vertical transmission path;

driving means capable of supplying a plurality of pulses for driving a charge transfer gate corresponding to said plurality of phases to said solid-state image pickup element;

exposure control means that ends exposure through the output of said pulse for driving charge transfer gate when a prescribed exposure time has elapsed since the start of exposure;

means of reading output signals that reads signals output by said solid-state image pickup element; and

signal compensation means that adds, to an output signal read by said output signal reading means, a prescribed amount of signal compensation that is determined in correspondence with said exposure time and output signal level, when a plurality of pulses for driving the charge transfer gates corresponding to said plurality of phases are output with prescribed time differences during exposure.

2. The image pickup apparatus according to claim 1, wherein said signal compensation means implements said addition compensation after implementing prescribed gamma conversion processing for output signal read by said means for reading output signals.

3. The image pickup apparatus according to claim 2, wherein said signal compensation means does not implement said addition compensation when said exposure time is a prescribed value or more.

4. The image pickup apparatus according to claim 3, wherein said signal compensation means changes amount of signal compensation in said addition compensation in correspondence with the state of use of strobe during the exposure.

5. The image pickup apparatus according to claim 2, wherein said signal compensation means changes amount of signal compensation in said addition compensation in correspondence with the state of use of strobe during the exposure.

6. The image pickup apparatus according to claim 1, wherein said signal compensation means does not implement said addition compensation when said exposure time is a prescribed value or more.

7. The image pickup apparatus according to claim 6, wherein said signal compensation means changes amount of signal compensation in said addition compensation in correspondence with the state of use of strobe during the exposure.

8. The image pickup apparatus according to claim 1, wherein said signal compensation means changes amount of signal compensation in said addition compensation in correspondence with the state of use of strobe during the exposure.

9. An image pickup apparatus, comprising:  
a two dimensional image pickup element that has a photoelectric conversion part arranged two-dimensionally and a vertical transmission path that is driven by a plurality of phase drive pulses, wherein of this plurality of phase drive pulses the drive pulse for one phase is further divided into a plurality of phases and acts as a pulse for transferring a signal charge from said photoelectric conversion part to said vertical transmission path;

exposure parameters recognition means that determines exposure parameters for said image pickup element, including exposure time and flash use status, and recognises whether or not those parameters are prescribed exposure conditions; and

disalignment compensation means that adds output

signal that has been converted into digital signal by said image pickup element and prescribed compensation value when said exposure parameter recognition means recognises that said image pickup element is being driven under prescribed exposure conditions.

10. The image pickup apparatus according to claim 9, wherein said prescribed compensation value is an addition value held in a table.

11. The image pickup apparatus according to claim 9, wherein said exposure parameter recognition means recognises said prescribed exposure conditions based on the correlation between the timing with which flash lighting stops and the timing with which said drive pulse for one phase is generated.